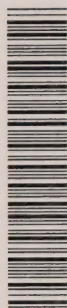


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NATIONAL ENERGY BOARD  
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# **SUBMISSION TO NATIONAL ENERGY BOARD**

**IN THE MATTER OF THE APPLICATIONS  
REFERRED TO IN THE NATIONAL ENERGY  
BOARD ORDER NO. GH-1-71**

**BY**

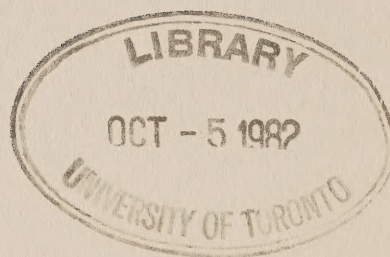
**CANADIAN PETROLEUM ASSOCIATION**

**JULY, 1971**

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IN THE MATTER OF THE NATIONAL ENERGY BOARD  
ACT AND THE REGULATIONS MADE THEREUNDER

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- AND -

IN THE MATTER OF THE APPLICATIONS FOR EXPORTATION  
OF GAS FROM CANADA BY ALBERTA AND SOUTHERN GAS CO.  
LTD., CANADIAN-MONTANA PIPE LINE COMPANY AND CON-  
SOLIDATED NATURAL GAS LIMITED, AS REFERRED TO IN  
THE NATIONAL ENERGY BOARD ORDER NO. GH-1-71

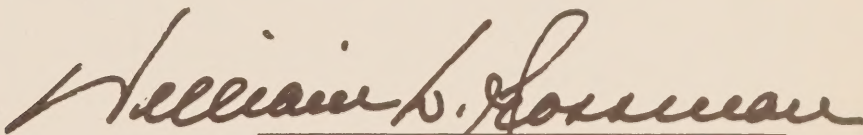
TO: NATIONAL ENERGY BOARD  
OTTAWA, ONTARIO

INTERVENTION

TAKE NOTICE that the Canadian Petroleum Association intervenes  
in the applications referred to above and tenders the following submission.

DATED at the City of Calgary, in the Province of Alberta, this  
2nd day of July, 1971.

Canadian Petroleum Association



W. L. Grossman, Chairman  
Board of Governors  
Canadian Petroleum Association

Notice and communications to the above named intervenor relating to this  
submission and the applications referred to herein should be directed to:

Mr. J. W. Proctor  
Canadian Petroleum Association  
625, 404 Sixth Avenue S.W.  
Calgary 1, Alberta.





## INTRODUCTION

The Canadian Petroleum Association is a non-profit organization whose membership comprises more than two hundred companies engaged in the oil and gas industry. Approximately half of the membership is directly involved in the exploration for and the development, production and transportation of crude oil and natural gas. The Association therefore has a particular interest in the subject applications.

The Association intervenes in these proceedings, as it has at previous hearings, for the purpose of making available to the National Energy Board the results of the Association's continuing studies on the natural gas reserves of Canada.

This submission consists of the following sections:

POTENTIAL RESERVES	Page 2
PROBABLE RESERVES	Page 4
NATURAL GAS SURPLUS TO CANADIAN REQUIREMENTS	Page 19
CONCLUSIONS	Page 24



## POTENTIAL RESERVES

In April, 1969, the Association's Geological Reserves Committee published its estimate of the potential reserves of oil and gas in Canada which are listed as follows:

POTENTIAL RESERVES, ALL OF CANADA,  
RECOVERABLE BY CONVENTIONAL METHODS

Crude Oil	120.8 Billion Barrels
Raw Natural Gas	724.8 Trillion Cubic Feet
Natural Gas Liquids	19.6 Billion Barrels

The Association's report on this subject was incorporated in its submission (Exhibit 60) to the National Energy Board in November, 1969, in connection with Board Order No. GH-4-69.

The conclusions of the 1969 study were reviewed in the light of industry developments in the past two years and the Committee concludes that its 1969 estimates remain reasonable. Industry exploration activity has tended to support the Committee's reserve estimates, with significant gas and oil discoveries in several regions. Gas discoveries were made in the Strachan-Ricinus area of southwestern Alberta indicating large remaining potential in the deeper portion of the southern Western Canadian Sedimentary Basin. Two reportedly large discoveries of gas have been made in the Sverdrup Basin of the Arctic Islands, one at Drake Point and a second at King Christian Island. Important oil and gas discoveries have been reported in the Mackenzie Delta





region at Atkinson Point and more recently at Mayogiak and Taglu. Interesting and encouraging oil and gas shows have been reported from a number of wildcat wells recently drilled in the Atlantic offshore region. At the same time there have not been any significant geological indications that would tend to reduce the earlier estimate of potential reserves.



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## PROBABLE RESERVES

The Canadian Petroleum Association's Reserves Committee has calculated Canadian natural gas reserves each year since 1955.

The remaining marketable gas reserves in Canada as of December 31, 1970, as estimated by the Association's Reserves Committee, are summarized as follows:

ESTIMATED REMAINING PROBABLE MARKETABLE GAS  
RESERVES IN CANADA AS OF DECEMBER 31, 1970  

---

(Trillions of Cubic Feet)

	At 14.65 psia & 60°F	At 14.73 psia & 60°F
Northwest Territories <sup>1</sup>	1.4	1.4
British Columbia	10.2	10.1
Alberta <sup>2</sup>	48.0	47.8
Saskatchewan	1.0	1.0
Manitoba	---	---
Ontario	0.3	0.3
Other Eastern Canada	---	---
TOTAL CANADA	<u>60.9</u>	<u>60.6</u>

<sup>1</sup> Gas reserves for the recent indicated discoveries at Drake Point and King Christian Island, reputed to be extensive, are not included as the CPA Reserves Committee did not have sufficient data upon which it could base its estimate of such reserves as of December 31, 1970.

<sup>2</sup> Before deduction of shrinkage for mainline reprocessing plants.





Tables 1, 2 and 3 are a summary of the Association's annual estimates of marketable gas reserves for Canada, Alberta and British Columbia. The gross additions, in Canada, for the eight-year period 1962-1970 averaged 4.4 trillion cubic feet per year. Additions in Alberta averaged 3.4 trillion and those in British Columbia 0.8 trillion cubic feet per year for this period.

The C.P.A. Reserves Committee was established by the Board of Governors in the early 1950's for the purpose of determining and reporting annual estimates of liquid hydrocarbons and natural gas reserves in Canada. Inasmuch as the American Petroleum Institute and the American Gas Association had been determining reserves estimates since 1936 and 1946 respectively, it was concluded that the Committee should pattern its reserves rules and procedures in line with these U. S. counterparts. These estimates, for both Canada and the U.S., provide a consistent but conservative historical statistical study of reserves.

In the late 1950's, it became apparent that the Committee's rules for the calculation of proved reserves were too conservative to provide useful data for regulatory agencies. The Committee then developed the rules and procedures for a probable reserves category and has determined probable reserves estimates annually since 1962.

Probable natural gas reserves are the Committee's most realistic estimate of the reserves that will ultimately be recovered from known pools,





based on all the knowledge available at the date of estimate. Substantial appreciation to reserves will result from subsequent development drilling and reservoir performance. Figures 1 through 3, in conjunction with Tables 4 through 6, illustrate the trend in historical appreciation of reserves that has occurred to date.

The estimating techniques for compiling reserves are outlined in the Association's booklet, "Reserves Committee Organization, Procedures and Definitions" dated November, 1970.

The Energy Resources Conservation Board of Alberta also estimates proved and probable reserves of marketable gas in Alberta. The definitions used by that Board are given on page II-1 of OGCB Report 71-18. The Board publishes estimates of Established Reserves, which includes all of the proved reserves and a judgment portion (usually 50 percent) of the additional probable reserves.

A comparison of the Association's annual estimates of Proved and Probable Reserves and the Energy Resources Conservation Board's estimates of Established Reserves is shown in Table 7 and Figure 4. For the years 1962 and 1963, that Board's estimates were higher than the probable reserves estimated by the Association. Since that time, the comparison of estimates and the trend of reserves growth shows excellent agreement.

Figures 1 through 3 are plots of the marketable gas reserves for Canada, Alberta and British Columbia, credited back to year of discovery



as estimated at December 31 of the years 1962, and 1964 to 1970, inclusive. Previous estimates of reserves are generally subject to adjustments when subsequent estimates are made. For example, in Canada as illustrated by Figure 1, reserves for pools discovered to December 31, 1962 were estimated to be 40.6 Tcf at that date. These reserves are currently estimated at 62.6 Tcf, which represents a 54 percent increase during the past eight years. Based on this historical trend, further appreciation will occur in gas reserves currently assigned to known pools.





TABLE 1

## CANADIAN PETROLEUM ASSOCIATION

ANNUAL ESTIMATES OF CANADIAN PROBABLE MARKETABLE GAS RESERVES\*

(Billions of Cubic Feet at 14.65 psia and 60°F)

Year**	Remaining At Beginning of Year	Changes Due To			Remaining at End of Year	Ultimate at End of Year
		Gross Additions	Net Production	Net Change		
1963	35,747	2,899	915	1,984	37,731	45,122
1964	37,731	9,115	1,014	8,101	45,832	53,450
1965	45,832	1,992	1,139	853	46,685	55,503
1966	46,685	4,024	1,143	2,881	49,566	57,842
1967	49,566	3,023	1,227	1,796	51,362	61,037
1968	51,362	4,855	1,408	3,447	54,809	65,801
1969	54,809	4,937	1,572	3,365	58,174	70,818
1970	58,174	4,600	1,838	2,762	60,936	75,435

\*Before deduction of shrinkage for mainline reprocessing plants.

\*\*Years 1963 to 1966 Marketable Reserves = Recoverable Reserves x 91%.

Gross Additions (1963 to 1970) = 4,431 BCF/Year.





TABLE 2

## CANADIAN PETROLEUM ASSOCIATION

ANNUAL ESTIMATES OF ALBERTA PROBABLE MARKETABLE GAS RESERVES\*  
(Billions of Cubic Feet at 14.65 psia and 60°F)

Year**	Remaining At Beginning of Year	Changes Due To			Remaining at End of Year	Ultimate at End of Year
		Gross Additions	Net Production	Net Change		
1963	28,727	2,421	715	1,706	30,433	36,348
1964	30,433	7,145	824	6,321	36,754	42,725
1965	36,754	2,119	925	1,194	37,948	44,884
1966	37,948	2,920	909	2,011	39,959	46,289
1967	39,959	2,099	970	1,129	41,088	48,582
1968	41,088	4,558	1,110	3,448	44,536	53,086
1969	44,536	3,320	1,255	2,065	46,601	56,463
1970	46,601	2,935	1,527	1,408	48,009	59,421

\*Before deduction of shrinkage for mainline reprocessing plants.

\*\*Years 1963 to 1966 Marketable Reserves = Recoverable Reserves x 91%.

Gross Additions (1963 to 1970) = 3,440 BCF/Year.



TABLE 3

## CANADIAN PETROLEUM ASSOCIATION

ANNUAL ESTIMATES OF BRITISH COLUMBIA PROBABLE MARKETABLE GAS RESERVES  
 (Billions of Cubic Feet at 14.65 psia and 60°F)

Year**	Remaining At Beginning of Year	Changes Due To			Remaining at End of Year	Ultimate at End of Year
		Gross Additions	Net Production	Net Change		
1963	5,684	617	111	506	6,190	6,456
1964	6,190	1,909	125	1,784	7,974	8,332
1965	7,974	-351	146	-497	7,477	8,048
1966	7,477	892	177	715	8,192	9,185
1967	8,192	881	202	679	8,871	10,052
1968	8,871	231	239	-8	8,863	10,245
1969	8,863	269	257	12	8,875	10,509
1970	8,875	1,565	252	1,313	10,188	12,088

\*\*Years 1963 to 1966 Marketable Reserves = Recoverable Reserves x 91%.

Gross Additions (1963 to 1970) = 752 BCF/Year.



## CANADIAN PETROLEUM ASSOCIATION

CANADIAN ULTIMATE PROBABLE MARKETABLE GAS RESERVES\*  
BY YEAR OF DISCOVERY

(Billions of Cubic Feet at 14.65 psia and 60°F)

Discovery Year	1962 Estimate**	1964 Estimate**	1965 Estimate**	1966 Estimate	1967 Estimate	1968 Estimate	1969 Estimate	1970 Estimate
1949	9,290	9,702	9,651	9,230	8,562	9,386	9,357	9,860
1950	9,733	10,475	10,357	10,044	9,956	10,878	10,819	11,396
1951	10,380	11,429	11,329	10,893	10,986	11,949	11,977	12,461
1952	14,505	16,143	16,463	15,889	16,105	17,050	17,227	17,760
1953	19,640	21,598	21,922	21,147	21,416	22,311	22,604	23,024
1954	21,465	24,026	24,244	23,643	24,252	25,121	25,465	25,893
1955	24,420	27,505	27,981	27,052	26,882	27,849	28,022	28,112
1956	28,020	29,734	30,360	30,743	30,143	31,496	31,644	32,248
1957	31,608	35,538	35,614	37,196	38,004	40,481	41,065	41,345
1958	35,741	40,587	40,842	41,962	43,400	45,991	46,645	47,314
1959	38,156	43,024	43,695	45,437	47,084	49,500	49,969	50,648
1960	38,986	44,454	45,308	47,140	48,984	51,677	52,128	52,994
1961	39,939	48,453	48,978	50,819	52,311	55,653	56,804	58,680
1962	40,627	51,525	52,180	53,785	55,371	58,927	60,415	62,614
1963		52,186	52,857	54,634	56,235	59,776	61,216	63,573
1964		52,687	53,848	55,284	57,068	60,693	62,318	64,644
1965			54,708	56,365	58,887	62,822	64,299	66,856
1966				56,992	59,578	63,716	66,295	68,874
1967					60,180	65,497	68,947	72,067
1968						65,801	69,303	72,586
1969							70,818	75,078
1970								75,435

\*Before deduction of shrinkage for mainline reprocessing plants.

\*\*Marketable Reserves = Recoverable Reserves x 91%.

Note: 1962-1967 Estimates for Western Canada only.

Gross Additions 1962-1970 34,808

Average per Year 4,351





## CANADIAN PETROLEUM ASSOCIATION

ALBERTA ULTIMATE PROBABLE MARKETABLE GAS RESERVES\*  
BY YEAR OF DISCOVERY

(Billions of Cubic Feet at 14.65 psia and 60°F)

Discovery Year	1962 Estimate**	1964 Estimate**	1965 Estimate**	1966 Estimate	1967 Estimate	1968 Estimate	1969 Estimate	1970 Estimate
1949	9,229	9,650	9,632	9,216	8,553	8,662	8,595	9,079
1950	9,672	10,424	10,338	10,030	9,950	10,094	10,037	10,595
1951	10,268	11,318	11,251	10,840	10,947	11,119	11,152	11,617
1952	13,895	15,560	15,911	15,361	15,594	15,763	15,967	16,487
1953	18,366	20,218	20,579	19,846	20,133	20,253	20,485	20,874
1954	19,568	21,846	22,125	21,438	22,068	22,161	22,451	22,861
1955	21,802	24,628	25,075	24,290	24,124	24,276	24,350	24,418
1956	25,087	26,413	27,018	27,518	26,829	27,312	27,364	27,983
1957	28,314	31,749	31,805	33,468	34,261	35,851	36,389	36,693
1958	30,813	34,090	34,402	35,022	36,155	37,865	38,461	38,787
1959	32,177	35,684	36,460	37,655	38,796	40,611	41,095	41,552
1960	32,373	36,447	37,410	38,957	40,286	42,392	42,855	43,454
1961	32,856	39,510	40,493	41,771	42,740	45,028	46,197	47,221
1962	33,109	41,794	42,919	44,102	45,165	47,703	48,984	49,952
1963		42,233	43,318	44,745	45,789	48,315	49,584	50,667
1964		42,725	44,284	45,346	46,514	49,119	50,576	51,627
1965			44,884	45,885	47,735	50,573	51,905	53,095
1966				46,289	48,180	51,205	52,537	53,675
1967					48,582	52,907	55,116	56,665
1968						53,086	55,305	57,007
1969							56,463	59,085
1970								59,421

\*Before deduction of shrinkage for mainline reprocessing plants.

\*\*Marketable Reserves = Recoverable Reserves x 91%.

Gross Additions 1962-1970 26,312  
Average Per Year 3,289



## CANADIAN PETROLEUM ASSOCIATION

BRITISH COLUMBIA ULTIMATE PROBABLE MARKETABLE GAS RESERVES  
BY YEAR OF DISCOVERY

(Billions of Cubic Feet at 14.65 psia and 60°F)

Discovery Year	1962 Estimate**	1964 Estimate**	1965 Estimate**	1966 Estimate	1967 Estimate	1968 Estimate	1969 Estimate	1970 Estimate
1949								
1950								
1951	15	3	3	4	4	4	4	4
1952	330	316	316	328	326	309	308	313
1953	565	547	547	496	494	474	564	585
1954	1,094	1,058	1,039	1,250	1,240	1,214	1,302	1,309
1955	1,540	1,605	1,691	1,750	1,760	1,768	1,897	1,890
1956	1,718	1,935	2,002	2,149	2,250	2,309	2,435	2,413
1957	1,984	2,338	2,386	2,588	2,615	2,667	2,747	2,716
1958	3,617	4,986	4,910	5,708	6,014	6,031	6,076	6,411
1959	4,617	5,816	5,688	6,550	7,055	6,792	6,765	6,981
1960	5,221	6,451	6,308	6,926	7,438	7,162	7,135	7,392
1961	5,626	7,327	6,824	7,728	8,248	8,430	8,400	9,238
1962	6,058	8,111	7,599	8,362	8,882	9,029	9,222	10,434
1963		8,330	7,870	8,563	9,116	9,258	9,415	10,672
1964		8,332	7,872	8,603	9,213	9,358	9,512	10,768
1965			8,048	9,065	9,735	9,949	10,081	11,428
1966				9,185	9,852	10,075	10,196	11,617
1967					10,052	10,146	10,264	11,817
1968						10,245	10,394	11,957
1969							10,509	12,086
1970								12,088

\*\*Marketable Reserves = Recoverable Reserves x 91%.

Gross Additions 1962-1970 6,030  
Average per Year 754





TABLE 7

ANNUAL ESTIMATES OF ALBERTA  
 ULTIMATE MARKETABLE GAS RESERVES\*  
 (Billions of Cubic Feet at 14.65 psia and 60°F)

Year	Canadian Petroleum Association		Alberta OGCB Established**
	<u>Proved</u>	<u>Probable</u>	
1962	30,934	33,109	35,456
1963	32,538	36,348	36,727
1964	38,169	42,725	39,776
1965	40,319	44,884	42,960
1966	41,763	46,289	44,403
1967	44,792	48,582	47,025
1968	48,293	53,086	51,803
1969	52,076	56,463	54,909
1970	53,667	59,421	56,549

\*Before deduction of shrinkage for mainline reprocessing plants.

\*\*From Table V-10, Page V-27 of OGCB Report 71-18.



FIGURE 1  
CANADIAN PROBABLE MARKETABLE GAS RESERVES  
CREDITED BACK TO YEAR OF DISCOVERY

AVERAGE INCREASE 4.4 TCF / YEAR

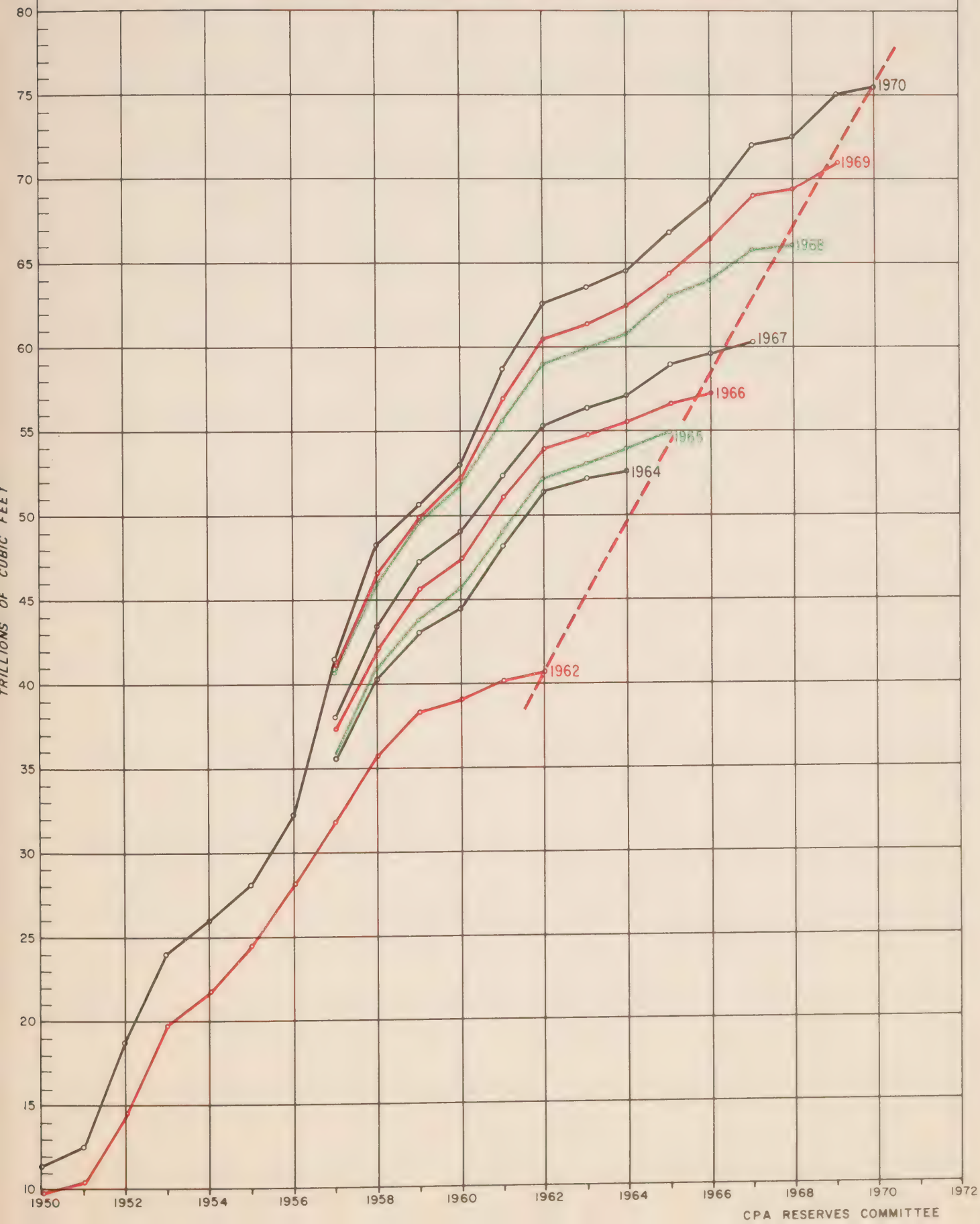




FIGURE 2  
ALBERTA PROBABLE MARKETABLE GAS RESERVES  
CREDITED BACK TO YEAR OF DISCOVERY

AVERAGE INCREASE 3.3 TCF / YEAR

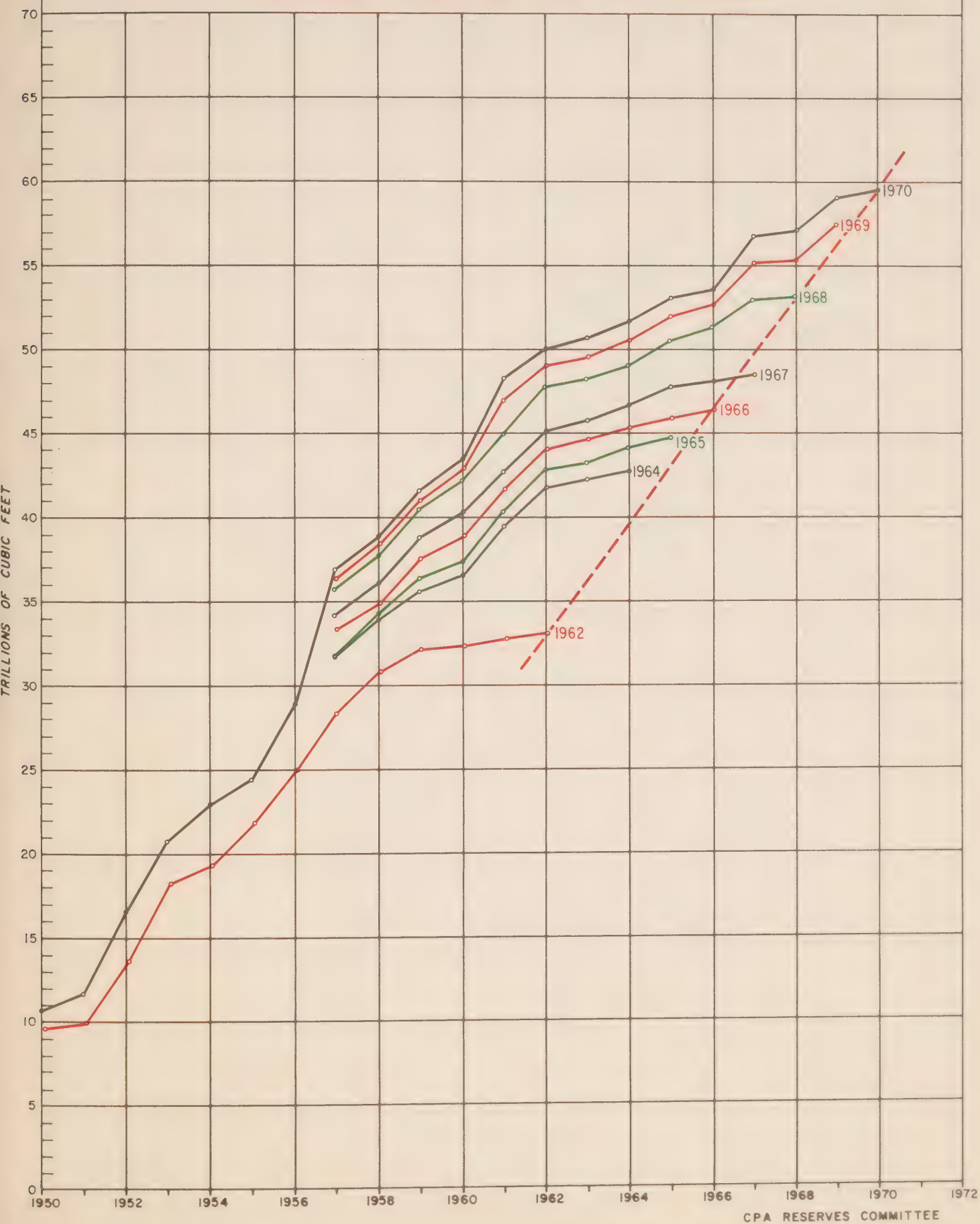






FIGURE 3

BRITISH COLUMBIA PROBABLE MARKETABLE GAS RESERVES  
CREDITED BACK TO YEAR OF DISCOVERY

AVERAGE INCREASE 0.8 TCF / YEAR

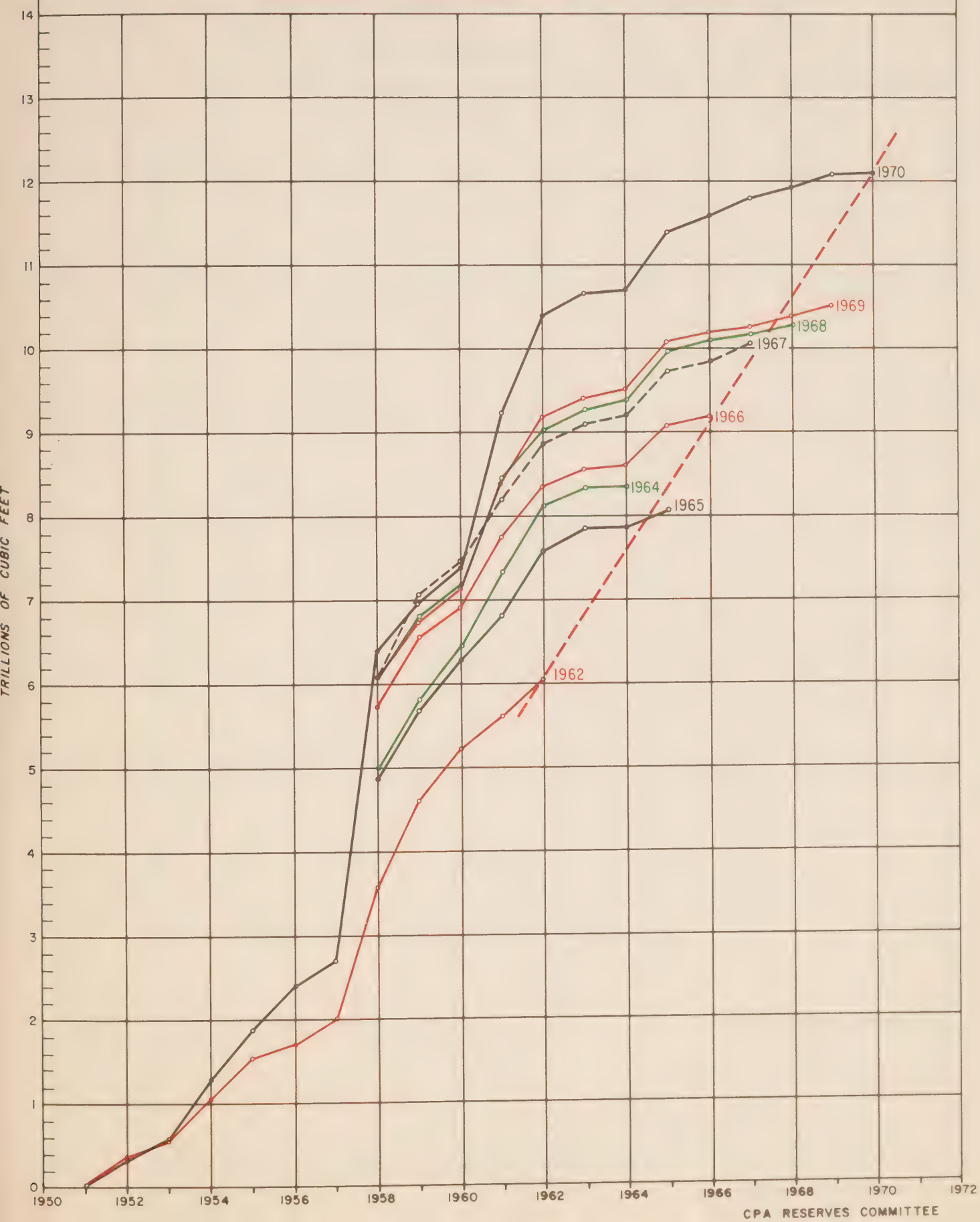
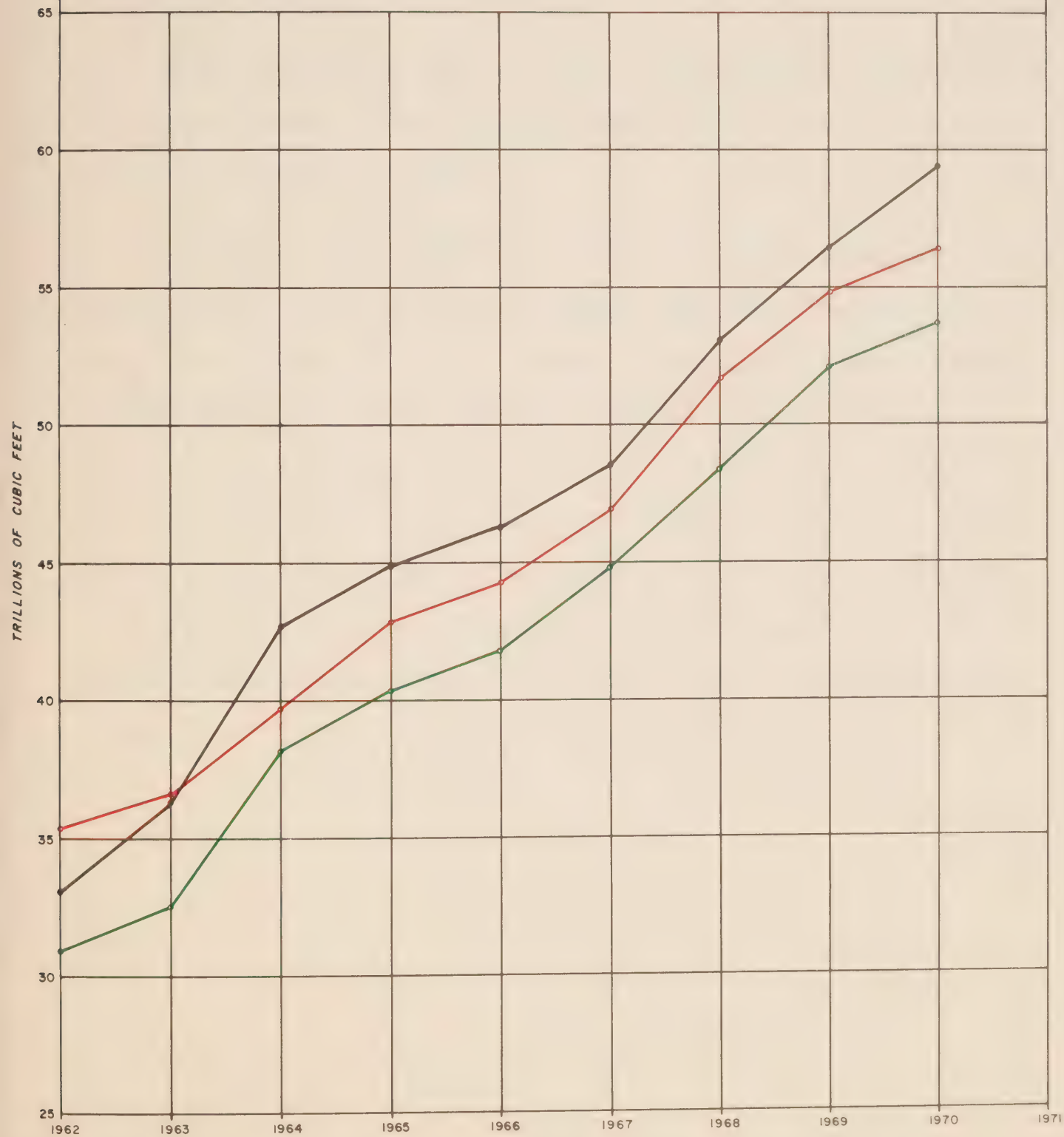




FIGURE 4

ANNUAL ESTIMATES OF ALBERTA  
ULTIMATE MARKETABLE GAS RESERVES

—○— CPA PROBABLE  
—○— ALBERTA OGCB ESTABLISHED  
—○— CPA PROVED







## NATURAL GAS SURPLUS TO CANADIAN REQUIREMENTS

This section deals with the calculation of surplus remaining after due allowance has been made for the reasonably foreseeable requirements for use in Canada having regard to the trends in the discovery of gas in Canada.

Tables 8 and 9 along with the explanatory notes have been prepared for illustrative purposes to assess the current surplus and the future relationship between requirements and supply.

Neither the remaining reserves nor the gross additions employed in these tables include reserves for the recent indicated discoveries at Drake Point and King Christian Island, in the Arctic Islands and Mayogiak and Taglu in the Mac-Kenzie - Delta area. Table 8 indicates a current surplus of 7.6 Tcf without providing for the current applications of 2.7 Tcf. Table 9 illustrates that the average required growth in reserves necessary to satisfy future requirements and the requested export applications will increase gradually from 2.6 Tcf per year to 3.7 Tcf per year over the next 20 years. This required growth rate is well below the average of 4.68 Tcf per year experienced during the period 1963 - 1970.



TABLE 8

CURRENT SURPLUS  
(All Volumes in TCF at 1000 BTU Per Cubic Foot)

SUPPLY

1. Total remaining reserves	65.6	
2. Less $\frac{1}{2}$ beyond economic reach	1.6	
3. Less deferred for conservation	<u>1.1</u>	
4. Total contractible reserves	62.9	
5. Plus remaining imports under existing licences	<u>0.1</u>	
6. TOTAL SUPPLY		63.0

REQUIREMENTS

7. Canada excluding Alberta	27.8	
8. Alberta*	10.4	
9. Existing export licences	<u>17.2</u>	
10. TOTAL REQUIREMENTS		55.4
		<hr/>
11. CURRENT SURPLUS		7.6
		<hr/> <hr/>

\*Includes shrinkage at mainline reprocessing plants.



TABLE 9

FORECAST OF FUTURE RELATIONSHIP BETWEEN REQUIREMENTS AND SUPPLY  
(All Volumes in TCF at 1000 BTU Per Cubic Foot)

Year Commencing 1st July	1971	1976	1981	1986	1991
<b>REQUIREMENTS</b>					
1. Canada excluding Alberta	27.8	34.9	42.4	50.4	59.9
2. Alberta*	10.4	13.9	15.9	17.2	17.8
3. Existing exports	17.2	11.9	6.9	2.8	0.3
4. Requested exports	2.7	2.0	1.3	0.5	-
5. Cumulative Canadian consumption	-	7.2	16.2	27.2	39.9
6. Cumulative exports	-	6.1	11.7	16.6	19.6
7. TOTAL REQUIREMENTS	58.1	76.0	94.4	114.7	137.5
<b>SUPPLY</b>					
8. Total remaining reserves	65.6				
9. Less ½ beyond economic reach	1.6				
10. Less deferred for conservation	1.1				
11. plus imports	0.1				
12. Total available reserves	63.0	63.0	63.0	63.0	63.0
13. Plus gross additions at 4.68 TCF per year	-	23.4	46.8	70.2	93.6
14. TOTAL SUPPLY	63.0	86.4	109.8	133.2	156.6
15. SURPLUS	4.9	10.4	15.4	18.5	19.1
16. Average Required Growth - TCF per year from June 30, 1971		2.6	3.1	3.4	3.7

\*Includes shrinkage at mainline reprocessing plants.





## EXPLANATORY NOTES

### CURRENT SURPLUS (TABLE 8)

1. Total remaining reserves of 65.6 Tcf are the CPA probable reserves before deduction of shrinkage for mainline reprocessing plants adjusted for trend additions and production to June 30, 1971, and converted to 1000 BTU per cubic foot.
2. Reserves beyond economic reach consist of 2.4 Tcf in Alberta and 0.8 Tcf in other areas.
3. Reserves deferred for conservation reasons represented those volumes as estimated by the Alberta Energy Resources Conservation Board in OGCB Reports 71-A and 71-18.
7. Requirements for Canada excluding Alberta are 25 times the estimated fourth year rate shown in the NEB Report of August 1970. ( $1,113.0 \text{ Bcf} \times 25 = 27.8 \text{ Tcf}$ .)
8. Alberta's requirements are 30 times the current year as set out in OGCB Report 71-B. ( $346.6 \text{ Bcf} \times 30 = 10.4 \text{ Tcf}$ .)

### FORECAST OF FUTURE RELATIONSHIP BETWEEN REQUIREMENTS AND SUPPLY (TABLE 9)

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13. Gross additions are 4,431 Bcf per year from Table 1, adjusted to 1,000 BTU per cubic foot.



TABLE 10  
CANADIAN PETROLEUM ASSOCIATION  
DEFERRED RESERVES  
(All Volumes at 1000 BTU Per Cubic Foot)

<u>Pool</u>	<u>Estimated Blowdown Sales Date</u>	<u>Marketable Reserves At Dec. 31, 1970 - BCF*</u>
<u>Available Within Five Years</u>		
Garrington Leduc Assoc.	1971	10
Harmattan East Rundle Assoc. & Diss.	1973 - 1977	961
Harmattan Elkton Rundle B&C Assoc. & Diss.	1972 - 1977	978
Kaybob Cadomin B. Assoc.	1974 - 1976	64
Leduc Woodbend Blairmore Assoc.	1975 - 1978	30
Medicine River Bsl. Qtz. B Assoc.	1972	26
Medicine River Ost. B. Assoc.	1975 - 1980	12
Paddle River Rundle	1971 - 1972	29
Ricinus Cardium A Assoc.	1973	140
		<hr/>
		2,250 2,250
<u>Available Within Ten Years</u>		
Bantry Mann. Assoc. (Other)	1980 - 1985	16
Countess Bsl. Qtz. B Assoc.	1980 - 1985	10
Joarcam Viking Assoc.	1980 - 1985	38
Leduc Woodbend D-2A Assoc.	1978 - 1980	47
Leduc Woodbend D-3A Assoc.	1978 - 1980	362
		<hr/>
		473 2,723
<u>Available Within Twenty Years</u>		
Bantry Mann. A Assoc.	1988 - 1992	23
Bashaw Mann. Assoc.	1984	10
Bashaw D-3A Assoc.	1984	12
Clive D-2A Assoc.	1985 - 1990	24
Clive D-3A Assoc.	1985 - 1990	19
Gilby Jr. B Assoc.	1988 - 1992	14
Golden Spike D-3A	1990 - 2000	248
Innisfail D-3 Assoc.	1985 - 1990	10
Jenner Mann. Assoc.	1988 - 1992	7
Kaybob South Triassic A Assoc.	1984 - 1988	43
Medicine River Mann. Assoc. (Other)	1985 - 1990	25
Medicine River Jur.D Assoc.	1990 - 1995	10
Medicine River Jur. Assoc. (Other)	1990 - 1995	11
Pembina Belly River Assoc.	1990 - 1995	18
Suncre Rundle A Assoc.	1988 - 1990	16
Sylvan Lake Pek. B Assoc.	1990 - 1995	14
		<hr/>
		504 3,227
<u>Available Within Thirty Years</u>		
Bonnie Glen D-3 A Assoc.	1995 - 2000	383
Sylvan Lake Jur. A Assoc.	1992 - 1995	34
		<hr/>
		417 3,644
<u>Deferred Beyond Thirty Years</u>		
Kaybob South Beaverhill Lake		138
Confidential and Small Pools		29
		<hr/>
		167 <u>3,811</u>

\*Source: OGCB Reports 71-A and 71-18



## CONCLUSIONS

The Canadian Petroleum Association submits that the applications for exportation of gas from Canada by Alberta and Southern Gas Co.Ltd., Canadian-Montana Pipe Line Company and Consolidated Natural Gas Limited referred to in National Energy Board Order No. GH-1-71 should be granted by the Board.

The Association further submits that:

1. An exportable surplus of 7.6 Tcf exists, more than sufficient to cover the amounts applied for by the above applicants.
2. The Board should use probable reserves of natural gas in determining whether or not an exportable surplus exists.
3. The Board should also have regard to the recent significant gas discoveries in Canada's Arctic areas, when making its decision on these applications.
4. If, after the closing of the hearing but before the Board reaches its decision, data becomes available to the Board, the applicants or any intervenors, which the receiver thereof deems to be of major importance to the issue, the Board should consider reconvening the hearing.





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